7. Write a program that demonstrates handling of exceptions in inheritance tree. Create a base class called "Father" and derived class called "Son" which extends the base class. In Father class, implement a constructor which takes the age and throws the exception WrongAge() when the input age=father's age.

```
import java.util.Scanner;
class WrongAgeException extends Exception {
    public WrongAgeException(String message) {
        super(message);
}
class Father {
    int age;
    public Father(int age) throws WrongAgeException {
        if (age < 0) {
            throw new WrongAgeException("Age cannot be negative");
        this.age = age;
    }
}
class Son extends Father {
    int sonAge;
    public Son(int fatherAge, int sonAge) throws WrongAgeException {
        super(fatherAge);
        if (sonAge < 0) {
            throw new WrongAgeException("Age cannot be negative");
        if (sonAge >= fatherAge) {
            throw new WrongAgeException("Son's age cannot be greater than father's age");
        this.sonAge = sonAge;
    }
}
class Demo {
    public static void main(String[] args) {
        try {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter father's age: ");
            int fage = sc.nextInt();
            Father father = new Father(fage);
```

```
System.out.println("Enter son's age: ");
   int sage = sc.nextInt();
   Son son = new Son(father.age, sage);

   System.out.println("Father's age: " + father.age);
   System.out.println("Son's age: " + son.sonAge);
} catch (WrongAgeException e) {
   System.out.println("Exception caught: " + e.getMessage());
}
}
```

```
C:\Users\sammj\OneDrive\Desktop\JAVA LAB\lab 7>java Demo
Enter father's age:
-40
Exception caught: Age cannot be negative
C:\Users\sammj\OneDrive\Desktop\JAVA LAB\lab 7>java Demo
Enter father's age:
40
Enter son's age:
-20
Exception caught: Age cannot be negative
C:\Users\sammj\OneDrive\Desktop\JAVA LAB\lab 7>java Demo
Enter father's age:
40
Enter son's age:
50
Exception caught: Son's age cannot be greater than father's age
C:\Users\sammj\OneDrive\Desktop\JAVA LAB\lab 7>
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-	and throws anython if sons age > fathers age.
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